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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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FRISHAUF, HOLTZ, GOODMAN & CHICK, PC
767 THIRD AVENUE
25TH FLOOR
NEW YORK, NY 10017-2023

EXAMINER

WARD, AARON S

ART UNIT PAPER NUMBER

2675

DATE MAILED: 12/13/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/084,538

Applicant(s)

ICHIKAWA, HIROTOSHI

Examiner

Aaron S. Ward

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 November 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 2-30 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 2-30 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____

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DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on November 3, 2004 has been entered.

Response to Amendment

In the November 3, 2004 Amendment, claim 1 is canceled; claims 2-11, 17, 18, 21 and 22 are amended; claims 12-16, 19 and 20 are maintained; and new claims 23-30 are added. Claims 2-30 are pending.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 2, 5, 8-12, 15, 18-22, 24 and 27-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wright et al. (already of record) in view of Kumagai et al., U.S. Patent No. 6,731,959.

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As to independent claim 11, Wright et al. teaches a mobile terminal apparatus including a first body 10, 12 (Figure 1) and a second body (not labeled) pivotably coupled thereto. The mobile terminal has an image display section 16 comprising an image display device 22 (Figure 5), a magnifying optical part 24, and observation projection 31 on the surface of the first body so as to project from the one surface of the first body 10, 12, and an observation window 28 fixed on the projecting surface of the observation projection 31 that leads the image outside. The bodies pivot between open/closed such that in the closed position the second body partially covers the surface of the first, and the observation window 28 is visible unobstructed from outside. The observation window 28 (Figure 5) of the image display section 16 is disposed to face outside when the first and second bodies are closed.

Wright et al. does not teach at least one pointing device that faces outside when the bodies are in the closed position or that the observation projection 31 is fixed in position to project from the first body's surface.

Regarding the pointing device, Kumagai et al. teaches a mobile terminal having first and second bodies 15, 17 (Fig. 5) pivotably supported and including at least one pointing device 32a, 32b disposed so as to face toward the outside when the first and second bodies are closed.

Kumagai et al. does not teach that the observation projection 12 is fixed.

It would have been obvious for one of ordinary skill in the art to combine the teaching of Kumagai et al. with that of Wright et al. to provide the convenience of scrolling information programmed within the Wright et al. mobile terminal while it was closed, and viewing the observation window while it was closed, as taught by Kumigai et al. One of ordinary skill in the

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art would be motivated to make the combination because it is known and desirable in the art to provide displays and controls in flip-type mobile terminals while the bodies are closed.

Regarding the fixed nature of the observation projection, it would be an obvious design choice to render the observation projection fixed. One of ordinary skill in the art would be motivated to make the design choice because it is desirable in the art to reduce the cost of manufacture, and providing fixed observation projection reduces costs because a fixed structure does not require a hinge assembly. Furthermore, providing a fixed observation projection is conducive to housing a magnifying optical display (as known in the art and taught in previously cited references relating to magnifying optical displays, such as Jachimowicz et al.) such that one of ordinary skill in the art would be motivated to fix the observation projection resulting from the combined teaching of Wright et al. and Kumagai et al.

As to independent claim 21, Wright et al. teaches a mobile terminal apparatus including a first body 10, 12 (Figure 1), an image display element 22 (Fig. 5) which displays an image, and a second body (not labeled) having first/second opposite surfaces pivotably supported thereon. The mobile terminal has an image display section 16 comprising a magnifying optical part 24 (Figure 5), an observation projection 31 which projects from the first body, and an observation window 28 provided on a projecting surface of the observation projection 31 and leads the image outside. The bodies pivot between open/closed such that in the closed position the second body's first surface faces the first body's one surface such that the second body partially covers the surface of the first, and the observation window 28 is visible unobstructed from outside. The observation window 28 (Figure 5) of the image display section 16 is disposed to face outside when the first and second bodies are closed.

Wright et al. does not teach at least one pointing device that faces outside when the bodies are in the closed position, or that the observation window 28 does not extend past the second body's second surface.

Kumagai et al. teaches a mobile terminal having first and second bodies 15, 17 (Fig. 5) pivotably supported and including at least one pointing device 32a, 32b disposed so as to face toward the outside when the first and second bodies are closed. Kumagai et al. teaches that the mobile terminal includes an observation window 12 parallel to the first body's surface 15 such that it does not extend past the second surface of the second body 17 when the bodies are closed (Fig. 5).

It would have been obvious for one of ordinary skill in the art to combine the teaching of Kumagai et al. with that of Wright et al. to provide the convenience of scrolling information programmed within the Wright et al. mobile terminal while it was closed, and viewing the observation window while it was closed, as taught by Kumagai et al. One of ordinary skill in the art would be motivated to make the combination because it is known and desirable in the art to provide displays and controls in flip-type mobile terminals while the bodies are closed.

As to independent claim 22, Wright et al. teaches a mobile terminal apparatus including a first body 10, 12 (Figure 1) and a second body (not labeled) pivotably supported thereon. The mobile terminal has an image display section 16 comprising an image display device 22 (Figure 5), a magnifying optical part 24, an observation projection 31 projected from a part of one surface of the first body 10, 12, and an observation window 28 which is provided on a projected surface of the observation projection 31 to lead the image outside. The bodies pivot between open/closed such that in the closed position the second body partially covers the surface of the

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first, and the observation window 28 is visible unobstructed from outside. Wright et al. teaches pointing device (Figure 1; numeric keypad, not labeled; it is known in the art to utilize the numeric keypad to control a cursor as a pointing device). The observation window 28 (Figure 5) of the image display section 16 is disposed to face outside when the first and second bodies are closed.

Wright et al. does not teach that the observation window 28 is parallel to the part of the one surface of the first body 10, 12, or that the at least one pointing device faces outside when the bodies are in the closed position.

Kumagai et al. teaches a mobile terminal having first and second bodies 15, 17 (Fig. 5) pivotably supported and including at least one pointing device 32a, 32b disposed so as to face toward the outside when the first and second bodies are closed. Kumagai et al. teaches that the mobile terminal includes an observation window 12 parallel to the first body's surface 15.

It would have been obvious for one of ordinary skill in the art to combine the teaching of Kumagai et al. with that of Wright et al. to provide the convenience of scrolling information programmed within the Wright et al. mobile terminal while it was closed, and viewing the observation window while it was closed, as taught by Kumigai et al. One of ordinary skill in the art would be motivated to make the combination because it is known and desirable in the art to provide displays and controls in flip-type mobile terminals while the bodies are closed.

As to claims 2 and 12, Wright et al. teaches that the image display section 16 is built in at least one of the first body 10, 12 and the second body.

As to claims 5, 15 and 24, Kumagai et al. teaches that the pointing device 32a, 32b (Figure 5) is disposed on the back surface of the second body 17.

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As to independent claim 8, Wright et al. teaches a mobile terminal apparatus including a first body 10, 12 (Figure 1) and a second body (not labeled) pivotably coupled thereto. The mobile terminal has an image display section 16 comprising an image display device 22 (Figure 5), a magnifying optical part 24 and an observation window 28 which projects from a side of one surface of the first body 10, 12 and leads the image outside. The bodies pivot between open/closed such that in the closed position the second body partially covers the surface of the first, and the observation window 28 is visible unobstructed from outside. Wright et al. teaches an operation section (Figure 1; numeric keypad, not labeled) on the first body 10, 12, and a display section 10 having lower resolution than image display section 16. The observation window 28 (Figure 5) of the image display section 16 is disposed to face outside when the first and second bodies are closed.

Wright et al. does not teach at least one pointing device that faces outside when the bodies are in the closed position. Wright et al. does not teach that the display section 10 is provided on the second body. Wright et al. does not teach an opening extending through the second body for insertion of the projecting observation window when the bodies are closed.

Regarding the pointing device and opening for insertion of the projecting observation window, Kumagai et al. teaches a mobile terminal having first and second bodies 15, 17 (Fig. 5) pivotably supported and including at least one pointing device 32a, 32b disposed so as to face toward the outside when the first and second bodies are closed. Kumagai et al. teaches that the mobile terminal includes an opening 20 extending through the second body 17 for insertion of the projecting observation window 12 when the bodies are closed.

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It would have been obvious for one of ordinary skill in the art to combine the teaching of Kumagai et al. with that of Wright et al. to provide the convenience of scrolling information programmed within the Wright et al. mobile terminal while it was closed, and viewing the observation window while it was closed, as taught by Kumagai et al. One of ordinary skill in the art would be motivated to make the combination because it is known and desirable in the art to provide displays and controls in flip-type mobile terminals while the bodies are closed.

Regarding the location of the lower resolution display 10, it is an obvious design choice to locate the display 10 on the second body (as evidence, e.g., by previously cited Jachimowicz et al. which teaches a hi/low resolution display on first/second pivotable bodies, respectively). Such design choice would be obvious to one of ordinary skill in the art because locating the display on the second pivotable body of Wright et al. would provide more design space for a larger display. One of ordinary skill in the art would be motivated to make the combination because the low resolution of the display benefits from a larger space for its location in order to fit more information due to the screen's lower resolution.

As to claims 9, 19 and 28, Wright et al. teaches that the magnifying optical part 24 has a free shaped surface optical device 28 (Figure 5).

As to claims 10, 20 and 29, Wright et al. teaches that the magnifying optical part 24 has a free shaped surface prism 24 (Figure 5).

As to claims 18 and 27, Kumagai et al. teaches that the second body 17 includes an opening 20 (Fig. 5) in which the observation projection 12 is inserted such that it faces outside in the closed position.

As to independent claim 30, Wright et al. teaches a mobile terminal apparatus including a first body 10, 12 (Figure 1), an image display section 16 comprising an image display device 22 (Fig. 5) which displays an image, a magnifying optical part 24 (Figure 5), an observation projection 31 which projects from the first body, and an observation window 28 provided on a projecting surface of the observation projection 31 which leads the image outside. Wright et al. teaches a second body (not labeled) swingably supported by the first body. The bodies swing between open/closed positions such that in the closed position the second body partially covers the surface of the first so that the observation window 28 is visible unobstructed from outside. The observation window 28 (Figure 5) of the image display section 16 is disposed to face outside when the first and second bodies are closed.

Wright et al. does not teach at least one pointing device that faces outside when the bodies are in the closed position. Wright et al. does not teach that the observation window 28/projection 31 is fixed to project from the first body, or that the observation window 28 does not project past the second body's back surface when the bodies are closed.

Regarding the pointing device and the projection of the observation window, Kumagai et al. teaches a mobile terminal having first and second bodies 15, 17 (Fig. 5) pivotably supported and including at least one pointing device 32a, 32b disposed so as to face toward the outside when the first and second bodies are closed. Kumagai et al. teaches that the mobile terminal includes an observation window 12 parallel to the first body's surface 15 such that it does not project past the back surface of the second body 17 when the bodies are closed (Fig. 5).

It would have been obvious for one of ordinary skill in the art to combine the teaching of Kumagai et al. with that of Wright et al. to provide the convenience of scrolling information

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programmed within the Wright et al. mobile terminal while it was closed, and viewing the observation window while it was closed, as taught by Kumigai et al. One of ordinary skill in the art would be motivated to make the combination because it is known and desirable in the art to provide displays and controls in flip-type mobile terminals while the bodies are closed.

Regarding the fixed nature of the observation projection, it would be an obvious design choice to render the observation projection fixed. One of ordinary skill in the art would be motivated to make the design choice because it is desirable in the art to reduce the cost of manufacture, and providing fixed observation projection reduces costs because a fixed structure does not require a hinge assembly. Furthermore, providing a fixed observation projection is conducive to housing a magnifying optical display (as known in the art and taught in previously cited references relating to magnifying optical displays, such as Jachimowicz et al.) such that one of ordinary skill in the art would be motivated to fix the observation projection resulting from the combined teaching of Wright et al. and Kumagai et al.

4. Claims 3 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wright et al. and Kumagai et al. as applied to claims 1 and 11 above, and further in view of Song et al.

Wright et al. and Kumagai et al. teach the claimed mobile terminal, but do not teach that the image display section is detachably supported.

Song et al. teaches a mobile terminal 10 (Figure 1A) having an image display section 12 detachably supported.

It would have been obvious for one of ordinary skill in the art to combine the teaching of Song et al. with that of Wright et al. and Kumagai et al. for the convenience of providing a hand-held visual display as taught by Song et al.

5. Claims 4, 6, 7, 14, 16, 17, 23, 25 and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over the combined teaching of Wright et al. and Kumagai et al. as applied to claims 11, 21 and 22 above, and further in view of Shirakawa (of record).

The combined teaching of Wright et al. and Kumagai et al. teaches the invention as claimed in the independent claims, but does not specifically teach the location of the pointing device on the back/side of the first/second bodies, or main/subordinate operation members.

Shirakawa teaches a mobile terminal having first and second bodies pivotably supported and including at least one pointing device 13, 23, 26 (Figs. 1A and 1B) facing outside from the first/second bodies including main/subordinate members.

It would be obvious to combine the teaching of Shirakawa with that of Wright et al. and Kumagai et al. because the references are directed to mobile terminals and their interfaces. One of ordinary skill in the art would be motivated to make the combination because it is known and desirable in the art to provide the convenience of scrolling/operating the device while closed, as taught by Shirakawa (col. 2 line 57 – col. 3 line 7).

As to claims 4, 14 and 23, Shirakawa teaches that the pointing device 13 (Figure 1A) is disposed on the back surface of the first body 11.

As to claims 6, 16 and 25, Shirakawa teaches that the pointing device (Figure 3A) has a main operation member 47 and a subordinate operation member (Figure 3A) on the back surface

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of the second body 42 (Figure 3B), and a connecting member (Figure 3B), which connects the subordinate and main operation members interlocked with each other.

As to claims 7, 17 and 26, Shirakawa teaches side surfaces of the first and second bodies, and that the pointing device 23 (Figure 1A) is disposed on the side surface of the first or second body.

Response to Arguments

6. Applicant's arguments with respect to the claims have been considered but are moot in view of the new ground(s) of rejection.

Conclusion


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Aaron S. Ward whose telephone number is (703) 305-8992. The examiner can normally be reached on Monday - Friday, 8:30 am - 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Steven J. Saras can be reached on (703) 305-9720. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

ASW



DENNIS-DOON CHOW
PRIMARY EXAMINER